Listing of Claims:

1. (previously presented) A system, comprising:

a base station that provides a forward channel signal; and

a plurality of remote stations, wherein each remote station monitors said forward channel signal, monitors a reverse channel within an assigned period of time in a clear channel assessment interval, and provides a reverse channel signal when said reverse channel is clear within said assigned period of time, wherein said clear channel assessment interval is partitioned into periods of time and each of said periods of time is assigned to one of said plurality of remote stations.

2. (previously presented) The system of claim 1, wherein said base station receives information encoded on said reverse channel signal and wherein each remote station receives information encoded on said forward channel signal.

3. (previously presented) The system of claim 1, wherein said forward channel signal and said reverse channel signal include data packets.

4. (previously presented) The system of claim 3, wherein said data packets include digitized voice and data.

5. (previously presented) The system of claim 1, wherein said forward channel includes an address.

6. (previously presented) The system of claim 5, wherein each remote station is assigned a unique remote station address and wherein each remote station accepts information encoded on said forward channel signal when said address of said forward channel signal matches said assigned unique remote station address.

7. (previously presented) The system of claim 5, wherein a remote station address is assigned a priori to said remote station.

8. (previously presented) The system of claim 5, wherein said address is a broadcast address.

9. (previously presented) The system of claim 5, wherein said address is a semi-broadcast address.

10. (previously presented) The system of claim 5, wherein said address corresponds with an Internet Protocol address.

11. (previously presented) The system of claim 5, wherein said address is an Internet Protocol address.

12. (previously presented) The system of claim 5, wherein one remote station is assigned a first remote station address from a first set of addresses and a second remote station is assigned a second remote station address from a second set of addresses.

13. (previously presented) The system of claim 12, wherein said first set of addresses form a first zone and said second set of addresses form a second zone.

14. (previously presented) The system of claim 5, wherein each remote station is assigned a remote station address from a set of addresses and said set of addresses form an Internet sub-network.

15. (previously presented) The system of claim 1, wherein said assigned period of time is a predetermined dwell time and wherein each of said remote stations monitor said clear assessment channel interval during said predetermined dwell time.

16. (previously presented) The system of claim 15, wherein each of said dwell times is of equal duration.

17. (previously presented) The system of claim 15, wherein each remote station is dynamically assigned a dwell time.

18. (previously presented) The system of claim 17, wherein said dwell times are assigned to said plurality of remote stations in a round robin fashion.

19. (previously presented) The system of claim 1, wherein said forward channel signal is provided during a predetermined forward channel interval and said reverse channel signal is provided during a predetermined reverse channel interval.

20. (previously presented) The system of claim 19, further comprising guard times among said forward channel interval, said reverse channel interval, and said clear channel assessment interval.

21. (previously presented) The system of claim 20, wherein said guard times are positioned at the beginning and end of said forward channel interval, said reverse channel interval, and said clear channel assessment interval.

22. (previously presented) The system of claim 20, wherein said guard times are positioned at the beginning and end of said forward channel interval and at the end of said reverse channel interval and said clear channel assessment interval.

23. (previously presented) The system of claim 1, wherein the system is an Internet Protocol Multiple Access environment.

24. (previously presented) The system of claim 1, wherein said forward channel signal and said reverse channel signal are wireless signals.

25. (previously presented) The system of claim 22, wherein said forward channel signal and said reverse channel signal are modulated signals each having carrier signals with a frequency of approximately 2 GHz.

26. (previously presented) The system of claim 1, wherein said forward channel signal and said reverse channel signal are each electrical signals transmitted in an electrical medium.

27. (previously presented) The system of claim 1, wherein said forward channel signal and said reverse channel signal are each optical signals transmitted in an optical medium.

28. (previously presented) The system of claim 1, wherein said forward channel signal and reverse channel signal are half-duplex signals.

29. (previously presented) The system of claim 1, wherein said forward channel signal and reverse channel signal are full-duplex signals.

30. (previously presented) The system of claim 1, wherein said base station synchronizes with a portion of said plurality of remote stations.

31. (previously presented) The system of claim 28, wherein said base station uses broadcast control packets for synchronization.

32. (previously presented) A method for a single-point to a fixed multi-point system having a base station and a plurality of remote stations, the method comprising the step of:

transmitting from the base station a forward channel signal;

monitoring for said forward channel signal at each of the plurality of remote stations; and

monitoring a reverse channel at each of the plurality of remote stations, wherein each of the plurality of remote stations monitors said reverse channel within an assigned period of time in a clear channel assessment interval, wherein said clear channel assessment interval is partitioned into periods of time and each of said periods of time is assigned to one of said plurality of remote stations,

if said reverse channel is clear during said assigned period of time associated with one of the plurality of remote stations and said one of the plurality remote stations has information to

send to the base station, transmitting a reverse channel signal from said one of the plurality of remote stations.

33. (previously presented) The method of claim 30, wherein said forward channel signal has data information and address information.

34. (previously presented) The method of claim 31, further comprising the steps of assigning a unique remote station address to each of the plurality of remote stations and accepting said data information at one of the plurality of remote stations when said address matches an unique address of said one of the plurality of remote stations.

35. (previously presented) The method of claim 34, wherein said step of assigning unique remote addresses is done a priori.

36. (previously presented) The method of claim 31, wherein said address information is a broadcast address.

37. (previously presented) The method of claim 31, wherein said address information is an Internet Protocol address.

38. (previously presented) The method of claim 31, further comprising the steps of assigning a first remote station address from a first set of addresses to one of the plurality of remote stations and assigning a second remote station address from a second set of addresses to another of the plurality of remote stations.

39. (previously presented) The method of claim 38, wherein said first set of addresses form a first zone and said second set of addresses form a second zone.

40. (previously presented) The method of claim 31, wherein said forward channel signal and said reverse channel signal include data packets.

41. (previously presented) The method of claim 38, wherein said data packets include digitized voice and data.

42. (previously presented) The method of claim 32, wherein each assigned period of time is a predetermined dwell time.

43. (previously presented) The method of claim 40, wherein each of said dwell times is of equal duration.

44. (previously presented) The method of claim 40, further comprising the step of dynamically assigning dwell times to each of the plurality of remote stations.

45. (previously presented) The method of claim 42, wherein said dwell times are assigned in a round robin fashion.

46. (previously presented) The method of claim 30, wherein said forward channel signal is provided during a predetermined forward channel interval and said reverse channel signal is provided during a predetermined reverse channel interval.

47. (previously presented) The method of claim 44, further comprising the step of providing guard times among said forward channel interval, said reverse channel interval, and said clear channel assessment interval.

48. (previously presented) The method of claim 45, wherein said guard times are positioned at the beginning and end of said forward channel interval, said reverse channel interval, and said clear channel assessment interval.

49. (previously presented) The method of claim 30, wherein the system is used in an Internet Protocol Multiple Access environment.

50. (previously presented) The method of claim 30, wherein said forward channel signal and said reverse channel signal are wireless signals.

51. (previously presented) The method of claim 30, wherein said forward channel signal and reverse channel signal are half-duplex signals.

52. (previously presented) The method of claim 30, wherein said forward channel signal and reverse channel signal are full-duplex signals.

53. (previously presented) The method of claim 30, further comprising the step of synchronizing the base station with the plurality of remote stations.

54. (previously presented) The method of claim 51, wherein broadcast control packets are used for synchronization.

55. (previously presented) A single-point to a fixed multi-point system, comprising:

a base station for transmitting a forward channel signal; and

a plurality of remote stations, each remote station monitoring said forward channel signal, monitoring a reverse channel within an assigned dwell time in a clear channel assessment interval, and transmitting a reverse channel signal after detecting that said reverse channel is clear, wherein said clear channel assessment interval is partitioned into dwell times, each dwell time assigned to one of said plurality of remote stations, said forward channel signal provided during a predetermined forward channel interval, and said reverse channel signal provided during a predetermined reverse channel interval.

56. (previously presented) The system of claim 53, wherein said forward channel signal has data information and address information.

57. (previously presented) The system of claim 56, wherein each remote station has a unique remote station address and each remote station accepts said data information when said address information matches said unique address.

58. (previously presented) The system of claim 56, wherein one remote station has a first remote station address from a first set of addresses and a second remote station has a second remote station address from a second set of addresses.

59. (previously presented) The system of claim 58, wherein said first set of addresses form a first zone and said second set of addresses forms a second zone.

60. (previously presented) The system of claim 54, wherein said address information is a broadcast address.

61. (previously presented) The system of claim 54, wherein said forward channel signal and said reverse channel signal include data packets.

62-63. (cancelled)

64. (previously presented) The system of claim 55, further including guard times among said forward channel interval, said reverse channel interval, and said clear channel assessment interval.

65. (previously presented) The system of claim 62, wherein the system is used in an Internet Protocol Multiple Access environment.

66. (previously presented) The system of claim 53, wherein said forward channel signal and said reverse channel signal are wireless signals.

67. (previously presented) The system of claim 53, wherein said forward channel signal and reverse channel signal are full-duplex signals.

68. (previously presented) A method of communicating with a station, comprising the steps of:

monitoring a forward channel;

monitoring a reverse channel within an assigned predetermined dwell time within a clear channel assessment interval, wherein said clear channel assessment interval is partitioned into a number of dwell times, each dwell time assigned to one of a number of remote stations, said number of dwell times being equal to said number of remote stations; and

transmitting a reverse channel signal after detecting that said reverse channel is clear during said predetermined dwell time, wherein said forward channel signal is provided during a predetermined forward channel interval and said reverse channel signal is provided during a predetermined reverse channel interval.

69. (previously presented) A station comprising:

a monitor for monitoring a forward channel signal and monitoring a reverse channel within a clear channel assessment interval, wherein said clear channel assessment interval is partitioned into at least two dwell times, one of said dwell times is assigned to said station with a remainder of said dwell times assigned to other stations, said monitor monitoring said reverse channel only within said dwell time assigned to said station; and

a transmitter for transmitting a reverse channel signal after said monitor detects that said reverse channel is clear during said dwell time, wherein said forward channel signal is provided during a predetermined forward channel interval and said reverse channel signal is provided during a predetermined reverse channel interval.

70. (previously presented) The station of claim 69, wherein said forward channel signal has data information and address information.

71. (previously presented) The station of claim 70, further comprising:

a unique station address, wherein said station accepts said data information when said address information matches said unique station address.

72-73. (cancelled)

74. (previously presented) The station of claim 69, wherein said forward channel signal and said reverse channel signal are wireless signals.

75. (previously presented) The station of claim 69, wherein said forward channel signal and reverse channel signal are full-duplex signals.

76. (previously presented) A base station comprising:

a transmitter for transmitting a forward channel signal; and

a receiver for receiving a reverse channel signal from one of a number of remote stations after said remote station detects that a reverse channel is clear during a dwell time assigned to said remote station in a clear channel assessment interval, wherein said clear channel assessment interval is partitioned into a number of dwell times, said number of dwell times equal to said number of remote stations, each dwell time assigned to one remote station, said forward channel signal provided during a predetermined forward channel interval, said reverse channel signal provided during a predetermined reverse channel interval, and said clear channel assessment interval occupies a time between said forward and reverse channel intervals.

77. (previously presented) The station of claim 76, wherein said forward channel signal has data information and remote station address information.

78-79. (cancelled)

80. (previously presented) The station of claim 76, wherein said forward channel signal and said reverse channel signal are wireless signals.

81. (previously presented) The station of claim 76, wherein said forward channel signal and reverse channel signal are full-duplex signals.